

PN-ACK-491

**PERCEPTIONS OF ANEMIA AND
HEALTH SEEKING BEHAVIOR AMONG
WOMEN IN FOUR INDIAN STATES**

Technical Working Paper #9

**Peggy Bentley and Anjou Parekh
MotherCare/John Snow, Inc.**

October 1998

This publication was made possible through support provided by JOHN SNOW, INC./MOTHCARE PROJECT and THE OFFICE OF HEALTH AND NUTRITION, BUREAU FOR GLOBAL PROGRAMS, FIELD SUPPORT AND RESEARCH, U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT, under the terms of Contract No. HRN-C-00-98-00050-00. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the U.S. Agency for International Development or John Snow, Inc.

**PERCEPTIONS OF ANEMIA AND
HEALTH-SEEKING BEHAVIOR
AMONG WOMEN IN FOUR INDIAN STATES**

TECHNICAL WORKING PAPER #9

Peggy Bentley and Anjou Parekh

Table of Contents

Introduction	1
MotherCare’s Anemia Prevention Research Initiative	2
Description of Intervention Sites and Studies	2
Baroda Citizens Council (BCC).....	2
Rural Unit for Health and Social Affairs (RUHSA).....	2
St. John’s Medical College	3
The Survival for Women and Children (SWACH) Foundation	3
Anemia Prevalence across Sites	3
Data Collection and Methods	4
Results	5
Local Terms and Language for Anemia	5
Perceived Causes of Anemia.....	6
Health Seeking Behavior Related to Anemia.....	7
<i>Diet and Home Remedies</i>	7
<i>Outside Treatment</i>	8
Knowledge and Use of Iron Supplements.....	9
<i>Perceptions of Benefits from Taking Iron Supplements</i>	9
<i>Availability of Supplements</i>	10
<i>Compliance</i>	10
Women’s Voices: Experiences with Anemia.....	11
Discussion	13
References	15

Tables

Table 1. Women in Study Areas, by Degree of Anemia.....4

Table 2. Qualitative Research Methods Used Across Sites5

Table 3. Terminology and Definitions Related to Anemia, Across Sites.....6

Introduction

Anemia is a major public health problem throughout the world, particularly for women of reproductive age in developing countries. In India, anemia is a common cause of maternal morbidity and mortality and a key factor related to low birth weight. In 1992, the World Health Organization estimated anemia prevalence (Hb below 11g/dl) among pregnant Indian women to be 88%, with a mean hemoglobin value of 9.1 gm/dl [1]. In 1990, the Government of India estimated that 19% of maternal deaths were related to anemia [2]. A recent clinic-based study of women 35 years and under in Mumbai compared five different groups of women: women being investigated for infertility, women admitted with PID, fertile non-pregnant women seeking tubal sterilization, pregnant women seeking tubal ligation after termination of pregnancy, and postpartum women seeking tubal ligation following delivery. The highest risk women were those who were currently pregnant or fertile but not pregnant [3].

Dietary inadequacy, especially of food sources rich in iron and folic acid, is a major determinant of anemia. According to the Indian Council of Medical Research, a normal Indian vegetarian diet, which is low in heme-iron food sources, contains 18-22 mg. of iron. This is only 58% of the 40-60 mg of iron recommended during pregnancy [4], based on a 10% absorption rate, which would provide the requisite amount of 4-6 mg [5,6]. Although iron absorption increases during pregnancy, iron-folate supplements are essential during this vulnerable period.

The low utilization of antenatal services is another important factor in the high rates of anemia among pregnant women in India. A recent study reported that only 22% of pregnant women utilized antenatal care, a majority of whom registered in the late second or early third trimester of pregnancy[7].

To address the public health problem of anemia, in 1970 India's Ministry of Health and Family Welfare initiated the National Nutritional Anemia Control Prophylaxis Programme (renamed the National Nutritional Anemia Control Programme (ACP), in 1989). The program recommends the promotion of iron-rich foods, provision of iron-folate tablets to pregnant and lactating women and preschool children, and the identification and treatment of women who are severely anemic. Under the ACP, pregnant women are eligible to receive daily supplements of 100mg elemental iron and 0.5mg folic acid. The program operates through the Integrated Child Development Services (ICDS) Programme under the Department of Women and Child Development. As part of this nutritional anemia control policy, Anganwadi workers in the ICDS program are mandated to distribute iron tablets to children and mothers and to provide education to mothers on nutritional anemia and its prevention. Despite the established ICDS program for anemia prevention, problems with implementation (supply, distribution), combined with a lack of compliance, have limited its potential to reduce the high prevalence of anemia [8].

MotherCare's Anemia Prevention Research Initiative

In recognition of the serious problem of anemia in India, MotherCare, an USAID-funded program, initiated a research program to test alternative strategies for improving iron status and reducing anemia prevalence among pregnant and lactating women. Four intervention studies were funded to represent geographical and cultural diversity in India (one site in northern India, Haryana; one in western India, Gujarat; and two sites in south India, Tamil Nadu and Karnataka). The four studies differed in their research objectives and design, but all had in common a formative research component to inform the intervention design. The formative data included the collection of qualitative data on women's terminology, perceptions, diet, and health-seeking behavior for anemia. A one-week qualitative research methods training workshop and subsequent consultant visits facilitated the design and analysis of the qualitative data.

This paper reports on selected qualitative data collected among pregnant and lactating women from the four studies. Where possible, we provide a comparative analysis across sites. For example, in all of the studies, formative data on the terminology, perceived severity of anemia, and knowledge/beliefs about iron-folate supplements were collected using similar methods. However, differences in formative research objectives, in study samples, and in the depth and breadth of the data vary, so comparisons are not always possible.

Description of Intervention Sites and Studies

Baroda Citizens Council (BCC)

BCC, a voluntary, non-profit organization located in urban Gujarat in western India, conducted the study, "Participatory Health Systems Research to improve the Anemia Control Program for Pregnant Women," under the Urban Revamping Scheme of the Vadodara Municipal Corporation (VMC). In Baroda, iron supplements for pregnant women are linked with antenatal care services provided by the Family Welfare Centres and Health Posts of the VMC. The VMC runs nine health posts under its Urban Revamping Scheme, which provide health care services, including reproductive health and family planning. Each health post covers a population of approximately 50,000; for this study, researchers purposively selected two health posts. The VMC's Anemia Control Program, which is a part of the antenatal care services, provides oral iron supplements to all pregnant and lactating women and under-five children.

Rural Unit for Health and Social Affairs (RUHSA)

Located in Vellore, Tamil Nadu (southern India), the RUHSA Department of the Christian Medical College and Hospital has been implementing Health and Development Programs since 1977. Reaching the rural population through 18 peripheral service units and one central service unit.

RUHSA carries out antenatal care programs that include the distribution of iron and folic acid (IFA) tablets. The present qualitative study was part of a larger study entitled, “A Programme to Prevent and Control Anemia Among Pregnant Women.” In addition to RUHSA service delivery in this block, the government’s Primary Health Care (PHC) program and Tamil Nadu Integrated Nutrition Program supply IFA tablets to pregnant mothers. Access to private health providers is limited.

St. John’s Medical College

The primary goal of the St. John’s Medical College project, “Reducing Maternal Anaemia through Community Participation,” was to reduce the prevalence of anemia in pregnant women in a selected population of Karnataka State (Southern India), through community participation and involvement. Qualitative research was carried out by the Department of Community Health, which was already involved in health care in the rural study areas of Sarjapur and Anugondanahalli. These areas are served by two government PHCs. In addition, each village has at least one *dai* (traditional birth attendant), and private practitioners abound in Sarjapur and in Whitefield (the nearest major town to Anugondanahalli). However, for most major health problems, people travel to Bangalore.

The Survival for Women and Children (SWACH) Foundation

The SWACH Foundation, based in Haryana, North India, is involved in a number of different reproductive health projects and research activities. The present program, “Prevention and Control of Anemia in Pregnant Women and Adolescent Girls in Rural Areas of Haryana, India,” aims to reduce anemia by improving the existing iron supplementation activities in Khizrabad block of Yamunanagar district in Haryana State, covering an area of approximately 5,000 pregnant women. Here, government health services are provided by the state government health department. In addition, the community development block has a community health center (CHC), 4 PHCs, and 23 health sub-centres, each staffed by one female and one male multipurpose worker (MPW). Female MPWs are responsible for registering pregnant women and providing their overall health services, family planning advice, tetanus toxoid, and IFA supplements.

Anemia Prevalence across Sites

Data reveal that in Gujarat, 80% or more of the pregnant women are anemic, with 21% having severe anemia (Hb<8g/dl) [9]. In the study area of K.V. Kuppam block in Tamil Nadu, prevalence of anemia among pregnant women is 70.5%, using a cutoff of less than 11g/dl of hemoglobin. In St. John’s intervention area, 60.4% of pregnant women had hemoglobin levels less than 11g/dl. In the rural areas of Haryana where SWACH is working, anemia prevalence is 76.8% for levels of 7-10.9g/dl, and 20% with levels below 7g/dl. In other words, 97.3% pregnant women of this study group were anemic. (Table 1 and Graph 1)

Table 1. Women in Study Areas, by Degree of Anemia

	Baroda	St. John's	RHUSA	SWACH
Normal	13%	24%	29%	2%
Mild	43%	51%	57%	33%
Moderate	33%	22%	11%	44%
Severe	11%	3%	3%	21%
All Women	100%	100%	100%	100%
N	153	835	484	307

Data Collection and Methods

To elicit multiple perspectives and gather information about knowledge levels regarding maternal anemia, several population categories were studied. In all four sites, pregnant and lactating women and health service providers were included. The rural Tamil Nadu and rural Karnataka sites augmented their data by exploring the views of women's family members (men) and adolescent girls.

In December of 1995, a workshop on adapting qualitative research methods for the anemia studies was held in Baroda, Gujarat. Members of the research teams from each site were trained in qualitative data collection methods, management and analysis. Information regarding perceptions of anemia and pregnancy was collected through various qualitative methods including semi-structured interviews, focus group discussions, free listing of common symptoms and illnesses of pregnant women, and seasonality analysis. Seasonality analysis is a participatory research method that elicits information through diagramming the seasonal availability, use, and cost of vegetables, greens, fruits, and iron-rich foods. Table 2, below, lists the various methods used by the different sites for the formative research phase.

Table 2. Qualitative Research Methods Used Across Sites

Method	Urban Gujarat	North Haryana	Rural Karnataka	Rural Tamil Nadu
Focus Group Discussion	X	X		X
Key Informant Interviews	X	X	X	X
Free Listing	X	X	X	X
Seasonality Analysis	X			X
Provider Preference Ranking		X	X	X
KAP		X		
Venn Diagramming			X	
Severity Ranking			X	
Social Mapping			X	
Direct Observation			X	
Case Studies			X	
Scenarios				X
Narratives				X

At each site, data were collected in the local language by trained data collectors. Hand-written notes were taken during all interviews and focus group discussions and were immediately expanded. The expanded notes were translated into English and entered into a word processing program.

Analysis of the interview and focus group data was done manually by reading through all the interviews, summarizing content areas and themes, and where appropriate, making tables. EPIINFO and ANTHROPAC programs were used to analyze the free listing and seasonality analysis. The analysis for this paper was based on summary data and reports submitted to MotherCare.

Results

Local Terms and Language for Anemia

Although the clinical terms for anemia were largely unrecognized by women in all four sites, women often used words that described symptoms of anemia (Table 3). For example, in all of the sites, local words describing blood loss, dizziness, and weakness were frequently reported by respondents. In rural Tamil Nadu, the clinical term for anemia, “iratha sohai,” was not known by any of the respondents, but many women reported pale skin pallor and weakness as a common

symptom they experienced. Likewise, in Baroda, the Gujarati term for anemia, “pandurog,” was not known by any of the women respondents.

Table 3. Terminology and Definitions Related to Anemia, Across Sites

Site	Terms	Translation
North Haryana	Kamzori Khoon ki kami Dholi ho gai hai	Weakness Less blood in body Color becomes white
Urban Gujarat	Kamjori/ashakti Occhu lohi Phikkash Bhook nathi lagti Lohi nu paani thai jay chhe	Weakness Less blood Paleness Loss of appetite/anorexia Blood turns into water
Rural Karnataka	Susthu Thalaisuthu Raktha heenathe	Weakness/fatigue Giddiness Less blood
Rural Tamil Nadu	Iratham kuraivaga ullathu Udambil iratham illai Iratham sundipochuthu Udampu veluppu Vellai kaamalai Varattu kaamalai Kaikaal veluppu	Low blood No blood in the body Less blood Paleness in the body Whiteness/paleness Dryness on the body Paleness in the hands/legs

Perceived Causes of Anemia

Varied responses were given by the respondents regarding the causes of anemia or associated symptoms, although many women did not have knowledge about anemia etiology. The most commonly reported cause across all four sites was poor dietary intake, primarily related to dietary quality. For example, women in North Haryana noted how “gaon mein auratein thekh khurak nahin khatin, sabko khila kar sabse bahd mein bachha khuchha khs leti hain” (in villages women don’t take a proper diet; they eat last, whatever is left). Many women across all sites attributed a low quality diet (such as a lack of strength giving foods such as milk, ghee (clarified butter) or

fruits) to poverty and an inability to access foods to sustain their health. Some women reported the consequences of repeated pregnancies on their health, as well as the toll of breastfeeding. Women in rural Tamil Nadu were aware that they should eat more food during pregnancy in order to avoid “less blood in the body,” yet many who reported this expressed their inability to do so because of undesirable side effects such as athigam sappitta, thookkam varuthu (sleepiness), moochu vanguthu (breathlessness), and vayiru pudiththu ilukkuthu (cramping). Also, in many of the sites, dietary restrictions that may reduce dietary diversity and quality during pregnancy were reported.

Health Seeking Behavior Related to Anemia

A common finding across all sites is a perception of the lack of importance or severity of anemia compared to other symptoms/illnesses that women experience. For example, when women were asked to “free list” illnesses or problems of women, anemia was commonly left off the list. However, a majority of women did report “weakness” to be a common problem, and weakness was often at the top of the list. Some women did explicitly associate weakness with anemia, particularly when they had been diagnosed with anemia by a health provider. In such cases, women did know that anemia could become severe (as when a blood transfusion was required), but in general women considered it quite “normal” to feel weak, particularly during pregnancy. Moreover, women assumed that weakness was because of the physiological changes taking place in their body as a result of the pregnancy.

Information on health-seeking behavior for anemia was elicited primarily through illness narratives and case studies of women experiencing anemia. Health-seeking behaviors included dietary changes/home remedies and outside care sought from the traditional and formal health care systems.

Diet and Home Remedies

Among the women interviewed in Haryana, the majority reported that anemia could be treated by a good diet. However, very few respondents stated that the diet of anemic women should include foods high in iron, such as green leafy vegetables like palak (spinach) or methi (fenugreek), sarson ka saag (mustard leaves), and bathua and ghiya (bottle gourd).

In rural Tamil Nadu, women generally expressed awareness that green vegetables are iron-rich. Only a few women were able to list other foods such as dates, jaggery, papaya, tomatoes, and lemons. Moreover, certain foods were expressly avoided during pregnancy, such as raw papaya, which is believed to cause abortion, and all black fruits (e.g., black grapes), which are believed to cause chevappu (a syndrome where a baby turns blue and dies). Jaggery is considered to be a hot food and, thus, is avoided during pregnancy since some believe it causes abortion. Some women said that when the body becomes “hot” during pregnancy, they take kashayam made by boiling together jeera (cumin), drumstick leaves and stems, coriander, lavangam (cloves), and palmyra jaggery.

In rural Karnataka, the preferred treatments for each of the problems identified during free listing was elicited from 33 women. For susthu (fatigue/weakness/tiredness), two women said they would eat “better” food; one woman said she drinks “tender coconut water with glucose powder or sugar.” For raktha heenathe (bloodlessness), five women out of 33 said they would eat “good food like meat and fish.”

In urban Gujarat, the majority of women reported that pregnant women should eat all types of foods during pregnancy and increase the quantity and frequency of food consumption. A few women reported avoiding eggplant, jaggery, curds, and buttermilk, and one mentioned that sour foods during pregnancy were not useful to make the blood “red and healthy.” One woman explained that guava should be avoided, because “suvavad vakhate ke pachhi, jamphal khavathi baalak ne pet maa dukhe chhe” (during pregnancy or lactation if guava is consumed, the baby will have a stomach ache). Another woman felt that it was important to follow the doctor’s advice regarding diet during pregnancy, adding that her doctor had asked her to eat everything except papaya, which she thought might lead to miscarriage. From a free listing exercise, it was evident that women felt their daily staple diet consisting of rotla (unleavened bread), khichadi (rice and lentil mix), and potatoes and onions, made their blood red and healthy.

Outside Treatment

The majority of the respondents felt that anemia was not serious enough to seek outside care. For example, women in Haryana reported chakar ana (dizziness) to be a normal sign of pregnancy. Some women reported that at first they ignored their symptoms. However, an increase in severity of these symptoms (e.g., giddiness, breathlessness) led to a decision to seek outside treatment. One of the respondent mentioned that “Zab zayada takleef bar gai aur utha bhi nahi zata tha to gaon ke doctor ke pas dikhaya” (when the illness increased and I was not able to get up, then I went to the doctor in the village). However, even when anemia symptoms become more severe, financial constraints are a major reason for delaying treatment-seeking. As one of the women in Haryana stated, “ghar mein roti mushkil se chalti hai, dawai lane ke liye paise kahan se layenge?” (it is very difficult to have food in the house; where will we get money for medicine?).

Data from Haryana show that, in the majority of cases, the husband makes decisions for treatment and also accompanies his wife to the clinic. However, only when symptoms become very severe is a decision taken to visit a health provider. One of the women respondents said, “gharwale ko takleef batao to ek kan se sunkar dusre se nikal deta hai, kehta hai ki apne app thekh ho jayegi, mere pas doctor ke pas jane ka time nahi hai” (When I inform my husband about the problem it goes into one ear and out the other. He says that this problem will be all right on its own and that he doesn't have time to go to the doctor.) Another women stated that “Gharwale to yadi charpai par late zao tabhi samajtain hain ki koi takleef hai, yadi chalte phirte raho to kehtain hain ki yeh to tekh takh hai” (Family members will take you seriously only when you are in bed; otherwise they think that we are fine because we are roaming around and doing our household jobs).

In Haryana, the majority of respondents who experience anemia symptoms report a preference for receiving care from a Registered Medical Practitioner (RMP) (usually private providers with mixed training and credentials). The use of an allopathic medical doctor was infrequently mentioned, since anemia is considered an illness of mild severity not requiring expensive care. One of the women went to a private RMP for treatment because her mother-in-law was working in that clinic. The majority of the women preferred RMPs because of easy access. When asked about the type of treatments given by the RMPs, ayurvedic syrups and tablets were most frequently noted.

In Gujarat, giddiness, tiredness, and weakness were among common health problems during pregnancy mentioned by women, and most did not take any medical treatment to get relief for these symptoms as they thought them to be a normal occurrence. In Tamil Nadu, as in Gujarat, most women stated that they do not seek help when they feel weak or tired during pregnancy as they assume that it is the common symptom during pregnancy. Elders and other influentials at home say “kulandai undanale appadithan irukkum, ithukkellam poi doctor parekka vendama? Nalla sappittale ellam sariahividum.” (When you conceive, you have all these problems...it is quite normal. Why do you go and see a doctor?) When a local diagnosis of anemia is made by relatives and neighbors, it is based on what the person looks like. For instance, “unnai parthale vallaia irukkira, athu vellai kamaalai aha rukkum,” (You look pale, it will be vellaikaamalai) or “unnai parthale irathame illathathu theriyuthu, kaamalai aha irukkum” (You look as though you have less blood; you have kaamalai). In these cases, the majority of women’s health seeking behavior is to visit a nearby allopathic health care facility, giving preference to NGO sources. Very few reported utilizing native medicines for maternal health problems (such as anemia).

In Karnataka, for susthu (fatigue/weakness/tiredness), 14 out of 33 women said that they would prefer to see a doctor (9 would go to the Government PHC and 5 to nearby private practitioners.). For raktha heenathe (bloodlessness), 2 women out of 33 said they would see a doctor (one noted a PHC doctor, the other a private practitioner). One woman said she would get red tablets (the government-supplied iron tablets are red in color) and one woman said she would buy a tonic.

Knowledge and Use of Iron Supplements

Perceptions of Benefits from Taking Iron Supplements

Women in the four different sites have varying degrees of knowledge regarding the importance of consuming iron-folate supplements during pregnancy. In general, knowledge about the supplements and recommendations for their use during pregnancy is high, but actual use is low. Women believed that the supplements were specifically for consumption by pregnant women, although some women mentioned that any person who feels Kamjori (weakness) can consume the tablets. Data from rural Karanataka show that only one woman interviewed mentioned that the tablets “increase blood,” while most of the other women reported that they consumed the tablets during pregnancy only because they were told to do so (“...I don’t know why...they give, I take”).

In rural Tamil Nadu, the women who regularly consumed the tablets reported a willingness to do so because of the perceived benefit of “feeling healthy” (sathu mathirai sappitta udal thembaka irukkirathu) and that the tablets “give strength” (sakthi tharukuathu) rather than as a preventive measure for anemia. In Gujarat, some women who were consuming iron tablets described a feeling of well being (saru lage), feeling hungry (bhook lage), getting strong (sharir mein shakti), and improvement in the quality of blood (lohi no sudharo thay). The women also mentioned that the tablets gave them energy, because of which they could eat well and do their work. Women in Haryana who spoke positively about the tablets noted that they “takat deti hai” (give strength), “khoon banati hai” (make blood), “theek lagta hai” (make one feel well), and “bacha sehatmand paida hota hai” (help provide a healthy baby at birth). While women across the sites have a high awareness about ‘red tablets’, some have little understanding of why they should be consumed during pregnancy.

Availability of Supplements

Most of the women reported obtaining the tablets during the third to fifth month of pregnancy. A majority of women in Baroda reported that they received iron folate supplement tablets from the government hospitals, private clinics, medical stores, and health posts. Most of the women in rural Karnataka procured iron tablets from private practitioners, while in Tamil Nadu a majority of women received tablets from the RUHSA or mobile clinics. Few received tablets from private practitioners. This preference can be attributed to the general community sentiment that the tablets provided by RUHSA were better than those provided by the government.

Compliance

In North Haryana, although more than 90% of the pregnant women were receiving iron folate tablets at some point during pregnancy, only 10% of the women consumed the tablets regularly for the recommended duration of three months. The reasons for low compliance included: lack of knowledge of the importance of correcting anemia, lack of understanding the purpose of iron folate supplements, lack of time to obtain supplements, forgetfulness, unfamiliarity with the need to continue daily consumption for a minimum of 90-100 days, and side effects (only reported by 10 percent of women).

In Haryana, women spoke about the low quality of the tablets and felt that since they were free they could not be good. In this site, where availability of iron folate supplements is high, low compliance is because of concerns/experience with side effects or because they are not perceived to provide benefits. Several women who provided narratives about their experiences with supplements remembered having nausea and vomiting. The majority of women, however, simply believed that the tablets did not provide any perceptible benefits and, so, discontinued taking them (if they consumed them at all) at some point during their pregnancy.

In rural Tamil Nadu, although more than half of the women expressed a willingness to continue taking the tablets because they make them “feel better”, a few showed resistance to taking the supplements (“I cannot take any tablet because my body is hot...”; “I cannot tolerate swallowing iron folate tablets so I stopped taking them from the beginning”). Although many pregnant women perceive the benefits of iron folate tablets, the knowledge regarding their effects on maternal anemia is non-existent. Instead, women relate iron folate tablet consumption with general health.

In Karnataka, most women who reported taking iron supplements expected to feel better, but were disappointed (“I don’t know...about these tablets...but my problems have not changed since I started taking them...”; “...I have taken [red tablets] for three nights but am not feeling better”). Others reported a preference for tonics (“....so, now I take the red tablets given at the PHC. It leaves a bad taste in my mouth but what can I do?”). Side effects were reported by some: “my sister...experienced tiredness and had been given similar tablets. She told me she had a bad stomach ache after taking the tablets. After hearing this, I did not even open my packet...”).

Findings from the urban Gujarat study indicate that very few women complained of uneasiness, vomiting and presence of black-colored stools due to tablet consumption. In fact, a high percentage of pregnant women (86%) reported that they consumed iron tablets regularly, and more than 60% were aware of benefits of supplementation, such as increase in strength and improvement of the blood. In the present study, about half of the women could state benefits from taking iron folate tablets and reported experiencing those benefits themselves. One reason for this awareness could be that in an urban setting, many women received information on iron folate supplementation from different sources, such as private doctors, government doctors, and anganwadi workers.

Women’s Voices: Experiences with Anemia

The following case studies of women experiencing anemia illustrate the context, conditions and health-seeking behavior of pregnant women who experience symptoms of anemia.

Case 1: Muniratna is 33 years old and cannot read or write. She comes from the Harijan colony of her village in rural Karnataka. This is her third pregnancy. Her hemoglobin is 8g/dl.

“I am tired all the time and my head keeps going round and round. I also hear a ringing sound in my ears. What can I do?...I cannot do anything. Money is such a problem. My husband is always asking me to go to my parents’ house and ask them for money. How can I do that? After all, he will only spend the money on alcohol.

I was feeling so bad that I went and bought a tonic. I borrowed money for that, but I cannot do anything...no work or anything without taking some medicines. I took the tonic. I am a little better now. But, how long can I take the tonic? When I stopped, I started to feel bad again. So, now I take the red tablets (government-supplied iron tablets) given in Anugondanahalli (PHC). They leave a bad taste in my mouth, but what can I do?...I have to take the.”

Case 2: Lakshamma is 30 years old and this is her fourth pregnancy. She used to work in the fields of rural Karnataka but has been unable to during this pregnancy. Her hemoglobin is 6.3g/dl.

“I am very tired and have difficulty doing any work. I cannot even work in the house without stopping now and then. If I do work, I get palpitations and get very scared. What can I do? They told me to take the tablets which sister (JHA) gives, but I have taken this before and it is useless...(makes a dismissive gesture with hand). Last time I took them, I had so much nausea that I threw them away. I wanted to have a tonic because I think my body is very hot and the tonic will have a cooling effect.

I got the tonic from the Medical Shop and took it for two weeks. I am better, but am only getting better very slowly. I think, next time I will ask for a thicker tonic so that I will get better faster, because thick tonic will also be strong.”

Case 3: Dhanalakshmi is 22 years old, illiterate, and an agricultural laborer in rural Karnataka. This is her second pregnancy. Her first child is only 18 months old. Her hemoglobin is 10.3g/dl.

“I am very tired, and find the even doing housework makes me more tired. I can normally do this and work in the field. But I don’t know.... this time I feel very weak. I cannot digest things that I eat. So, where will I get energy? People say I must take a tonicthey say a costly one will be good, but I cannot afford this. So, I got the tonic tablets. It’s the same, isn’t it? I took the tablets for one month and am feeling better. I usually don’t like to swallow tablets at all, but then I am better. So, somehow I will make myself swallow. I have so much work...who will do it if I do not do it?”

Case 4: Geetha was born and brought up in the Sethuvandai colony of K.V. Kuppam Block in Tamil Nadu. She is from a scheduled caste and educated to the fifth standard. She has five daughters, and reported a hemoglobin level of 5.22gm at the time of her fifth conception.

“I was quite normal even until the fourth delivery. However, because of continuous births, I have become very weak. Moreover, my worries about having successive girl babies sapped my strength. Also, I worried too much about my husband’s drinking habit and the desperate situation of not having any close relatives on my husband’s side to take care of the girls. I had “angular stomatitis” from the very beginning. When I asked the doctor, he said that I didn’t have adequate blood, and that was why I have this.”

Discussion

Anemia among women of reproductive age in India remains a serious public health problem, that has changed little, if at all, over the last several decades. More than 70 percent of Indian women who are pregnant or lactating are anemic. Indeed, anemia and its consequences have become ‘normalized’, both for clinicians and women themselves.

This paper has summarized four qualitative studies on women’s knowledge, perceptions, and health-seeking behavior related to anemia. The research was conducted to gain a better understand how to improve iron status among women in a country where it is the norm to experience anemia. Interventions in all four sites were developed, based, in part, upon the results of this research.

There are several striking similarities of the qualitative data across the four study sites. First, local terms for the clinical symptoms of anemia are widely reported by women, particularly words that describe the sequelae of anemia—weakness, dizziness, and blood loss. In addition, women clearly understand that dietary quality—limited by a lack of financial resource—is a major reason that they

often feel weak and fatigued. Some women also understand the toll that short birth intervals and the subsequent increased demands from breastfeeding, have on their health.

Women who have been diagnosed and treated by health providers for anemia are more knowledgeable about etiology and treatment, but anemia and its associated symptoms are not considered to be serious or a priority for health-seeking behavior. In part, this is because so many pregnant Indian women *are* anemic. The associated symptoms of weakness, fatigue, giddiness, pale skin pallor, etc. are normalized and accepted as an ordinary part of being a woman and mother.

Women across the study sites are generally aware of the availability of and recommendations to consume iron-folate supplements during pregnancy. Although some women reported problems with access to supplements, data from these studies suggest that acceptance and use of the supplements is at least as problematic as supply. Women spoke about side effects, but they also frequently spoke about the lack of any benefit that the supplements can provide for their health. Women do not seem to understand why it is important for them to consume the “red tablets” that are so widely promoted by their health providers and clinics. This suggests that programs need to develop much more specific messages about how iron-folate supplements can help alleviate the symptoms that women commonly report during pregnancy—weakness and fatigue—and which are clearly symptoms of anemia and under-nutrition.

In summary, these data identify a window of opportunity for programs and providers. A social marketing approach for the distribution and promotion of iron-folate supplements, combined with efforts focused on changing women’s priorities and promoting behaviors that will lead to improved health and well-being, is essential. However, we agree with Gopalan (10) about the need for programs to address improvements in dietary intake for women and their families. Thus, a three pronged approach, including increased dietary intake of iron -rich foods and Vitamin C to enhance iron absorption, iron-folate supplements during vulnerable periods, and food fortification of appropriate foods with iron, will be necessary to have an impact upon the high rates of anemia in India.

References

- 1 *The Prevalence of Anemia in Women: A tabulation of available information*, WHO, 1992.
- 2 National Child Survival and Safe Motherhood Programme, MCH Division, Department of Family Welfare, Ministry of Health and Family Welfare, Government of India, January 1994.
- 3 Brabin, L, Nicholas, S., Gogate, A., Gogate, S., and Karande, A. High prevalence of anaemia among women in Mumbai, *India Food and Nutrition Bulletin*, Vol 19, No. 3 1998.
- 4 Recommended dietary allowances for Indians, Indian Council of Medical Research, 1989.
- 5 Apte, SV, Iyengar, L. Absorption of dietary iron in pregnancy. *American Journal of Clinical Nutrition* 23: 73, 1970.
- 6 Narasingha Rae, B.S., Vijayasathy, C., Prabhavati, T. Iron Absorption from habitual diets of Indians studied by extrinsic tag technique. *Indian Journal of Medical Research*, 1983.
- 7 *ACC/SCN: Controlling Iron Deficiency*. ACC/SCN State of the Art Series, Nutrition Policy Discussion Paper, No. 9, ACC/SCN, Geneva, Switzerland, 1991.
- 8 Indian Council of Medical Research (ICMR). Evaluation of the national nutritional anaemia prophylaxis program. An ICMR task force study, ICMR, New Delhi, 1989.
- 9 Seshadri, S. An epidemiological analysis of the problem of anemia in South East Asia and strategies for its control. WHO collaborating Centre for Weaning Technology and Anemia Control, Department of Foods and Nutrition, M.S. University of Baroda, Baroda, 1993
- 10 Gopalan, C. 1998. Micronutrient Malnutrition in SAARC: The Need for a Food-based Approach. *Bulletin of the Nutrition Foundation of India*, Vol. 19, No. 3.